TT2200/2020



menieniz.

model TT2200/TT2020

Turntable

Version	Destination		
N	Europe (220V 50 Hz)		
T	England (240V 50 Hz)		
A	Australia (240V 50 Hz)		
C/U	North America (120V 60 Hz)		
E	General (110/220V 50/60 Hz)		
AE	General (110/220V 50/60 Hz)		

TABLE OF CONTENTS

Title	Page
1)Adjustments ·····	· 2
2/Troubleshooting ······	. 5
3)Diagrams ·····	. 6
(3)-1 Circuit Diagrams ······	. 6
(3)-2 Wiring Diagrams ······	. 7
4)Exploded View ······	
5)Parts List ·····	· 12
6)Screws, Washers and Nuts ·····	· 13
7)Power Supply Printed Circuit Board ······	· 13
8)Servo Controller Circuit Diagram ······	- 14

(1)ADJUSTMENTS

1. Tools required for adjustment

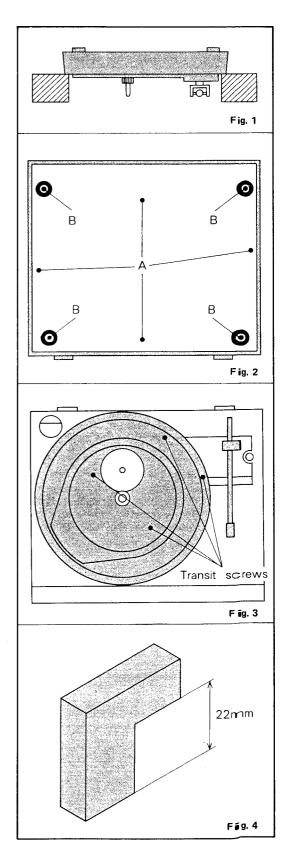
- (1) Phillips-head screwdrivers (for M3 and M4)
- (2) Slotted-head screwdrivers (medium and small sizes)

Caution for adjustments

- (1) Plug off the AC power supply cord.
- (2) Return the tonearm to tonearm rest and fix the tonearm to the tonearm rest with the lock-lever.
- (3) Remove the turntable platter and mat.
- (4) Set the cueing knob to the ▼ position.

2. Turntable platter height and level

- (a) Install the turntable in a servicing jig and remove the turntable mat and platter, if installed. Place the turntable upside down to remove bottom cover (Fig. 1).
- (b) Remove with a Phillips-head screwdriver the eight screws which hold the bottom base. (Fig. 2)
- (c) Re-set the unit for normal use on the table.
- (d) Remove the transit screws (red). (Fig. 3)
- (e) Replace the turntable platter, mat and install a record. Move the turntable shaft by your hand vertically and horizontally to make sure that the subchassis is suspended from the cabinet.
- (f) Measure from the surface of the cabinet to the height of the installed record. This dimension should be within 20.5-22.0 mm (0.807-0.870 in.). Adjust the sub-chassis suspension screws to acquire this distance. Refer to Fig. 5.



3. Stylus clearance adjustment

- (a) Set the cueing knob to ▼ position and move the tonearm over the record serface (Fig. 6). The clearance between the stylus point and the record should measure between 6-10 mm (0.24-0.39 in.). This dimension is set by screw A (Fig. 6).
- (b) Move the tonearm to the end of the record and slowly rotate the turntable platter until the tonearm starts returning. Stop the platter rotation when the tonearm is in the approximate position as above. Again measure the distance between the stylus point and the record surface. This measurement should be approximately the same clearacne 6-10 mm (0.24-0.39 in.). If the height needs to be adjusted, adjust screw B (Fig. 6).

4. Auto-return ratchet adjustment

(a) Adjust the gap between the turntable gear hook (Fig. 7) and the ratchet trigger for 0.3-0.4 mm (0.012-0.015 in.) by turning the adjusting pin.

5. Auto-return adjustments

- (a) Set the cueing knob to the ▼ position.
- (b) Move the tonearm to the end of the record disc so that the end of the program is just occuring. Rotate the adjusting screw so that the ratchet trigger does not engage the turntable gear hook until complete record ends (Fig. 8).
- (c) After this adjustment, check that the tonearm returns at the end of the completed program on the disc. We recommend to use a test record comparable to stock No. RG-800 for this check.

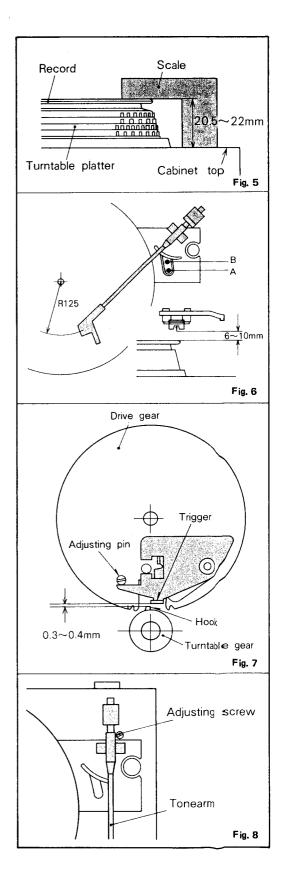
6. Micro-switch adjustment

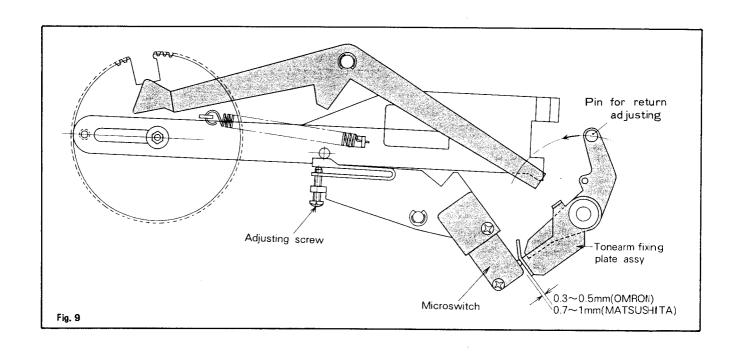
- (a) Adjust the distance between the micro-switch and the tonearm fixing plate for the distance specified in Fig. 9. Note that two different types of microswitches are used in this model and that each type requires a different gap.
- (b) Rotate the drive gear through its complete cycle to make sure that the micro-switch is functioning properly by the movement of the return plate assy.

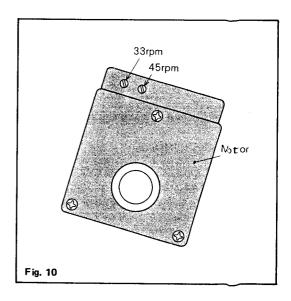
7. Speed adjustment

(c) Set the cueing knob to the

position and move the tonearm over the turntable platter. The turntable platter should be rotating. Adjust the variable resistors (Fig. 10) so that the strobe index on the platter edge stops and holds completely still. The speed should be checked and adjusted for both modes (33 and 45 rpm).







(2) TROUBLESHOOTING

 The turntable platter will not rotate even though tonearm is above the record.

Check to see that the voltage is supplied between (3) and (4) terminals in Power supply printed circuit board when tonearm is moved above the record.

No: Power supply cord is defective.

Yes: Check to see that the voltage is supplied between (31) and (32) terminals in Power supply printed circuit board.

No: Power transformer is defective.

Yes: Check to see that the voltage is supplied between (25) and (30) terminals in Power supply printed circuit board.

No: The rectification circuit is defective.

TYes: Motor is defective.

The tonearm returns to tonearm rest upon placing on the record.Check to see that the gap between turntable gear and ratchet is adequate

referring to Adjustment 4.

[No: Adjust the gap.

Yes: Check to see that return arm moves to the original position when tonearm is moved from the center of the turntable to tonearm rest by hand.

[No: Return arm is not correctly mounted.

LYes: Tonearm fixing plate assy. is not correctly mounted, or drive gear assy. is not laterally mounted.

3. The tonearm will not automatically return.

Check to see that the gap between turntable gear and ratchet is adequate referring to Adjustment 4.

rNo: Adjust the gap.

Yes: Check to see that tonearm returns when tonearm is moved to the most inner position of turntable.

_No: The tonearm fixing plate assy. is not correctly mounted.

Yes: Adjust return position referring to Adjustment 5.

4. The turntable platter will not stop rotating.

Check to see that the knob of microswitch is sufficiently pushed by tonearm fixing plate assy, when tonearm returns to tonearm rest.

[No: Tonearm fixing plate assy. is not correctly mounted.

Yes: Check to see that the gap between tonearm fixing plate assy. and microswitch is adequate referring to Adjustment 6.

No: Adjust the gap.

Yes: Microswitch is defective.

5. The strobe light will not turn on.

Check to see that supplied voltage between (7) and (14) terminals is adequate when tonearm moves above the record.

Yes: Neon lamp is defective.

No: Resistor for voltage adjustment is defective.

6. No sound from the speaker.

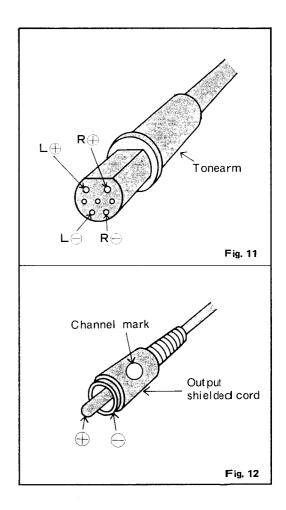
Remove headshell. Touch the upper two terminals (L+ and R+) at the end of tonearm with a metalic screwdriver and listen for the speaker to produce a humming noise. (Fig. 11)

Yes: Cartridge or headshell lead-wires is defective.

No: Perform continuity test between tonearm end and output shielded cord on dead channel. (Fig. 12)

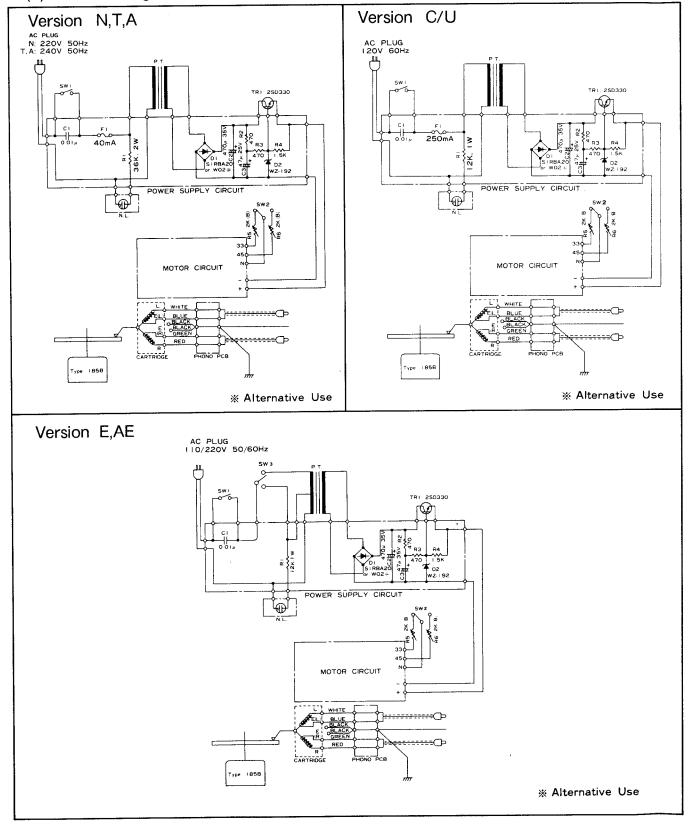
Yes: Dand Cables are not isolated.

No: Plug of output shielded cord or terminal is wrong connected. Perform continuity test of input terminal of amplifier (receiver)

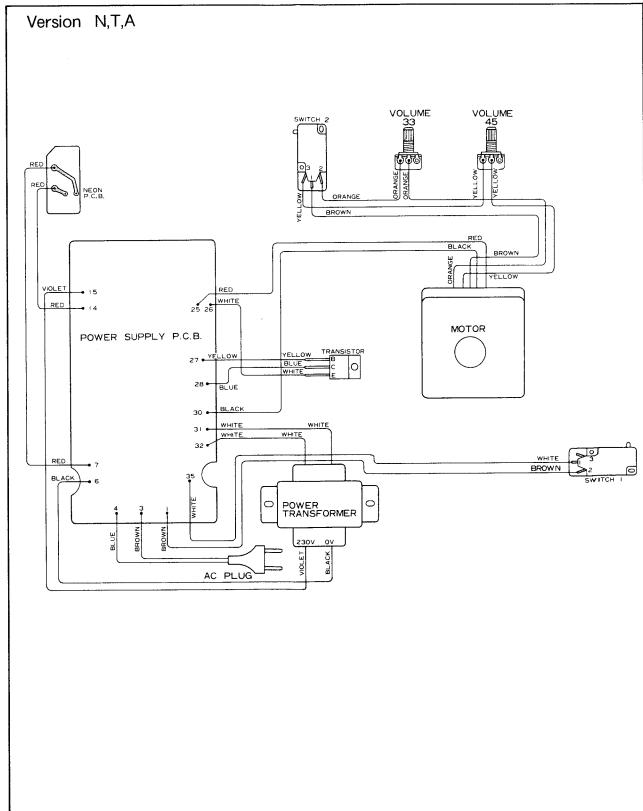


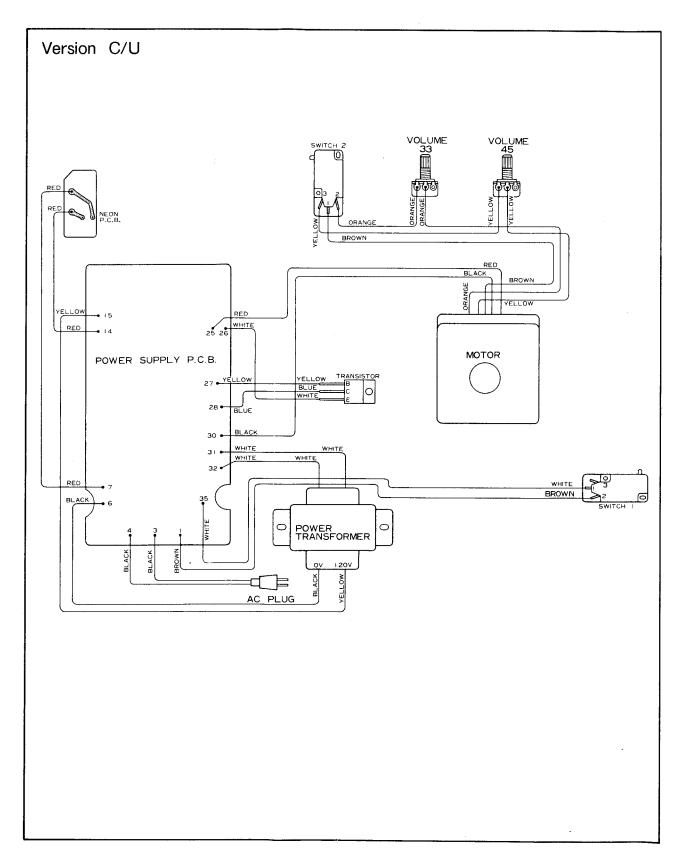
(3)DIAGRAMS

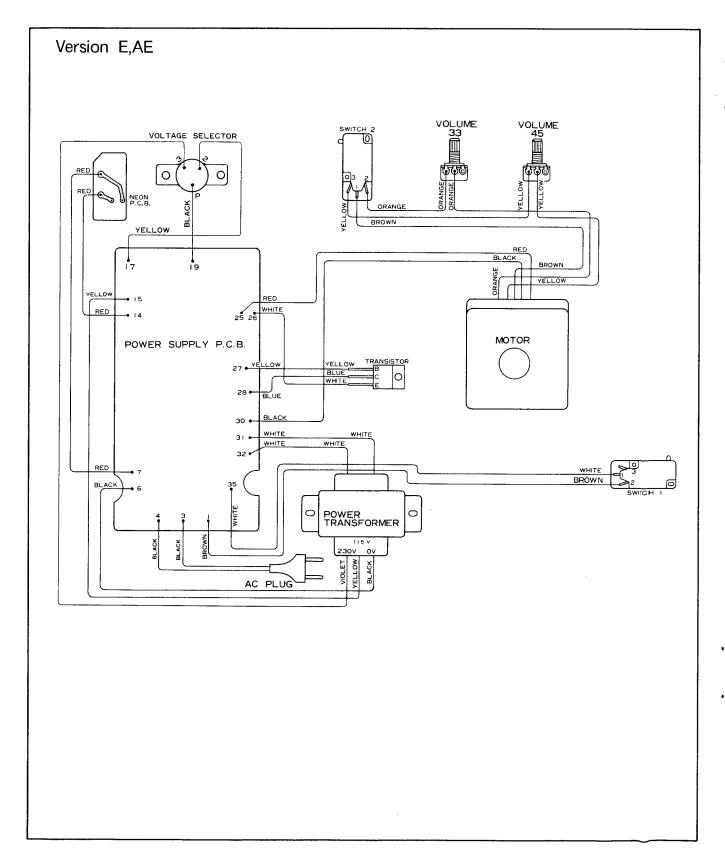
(3)-1Circuit Diagrams

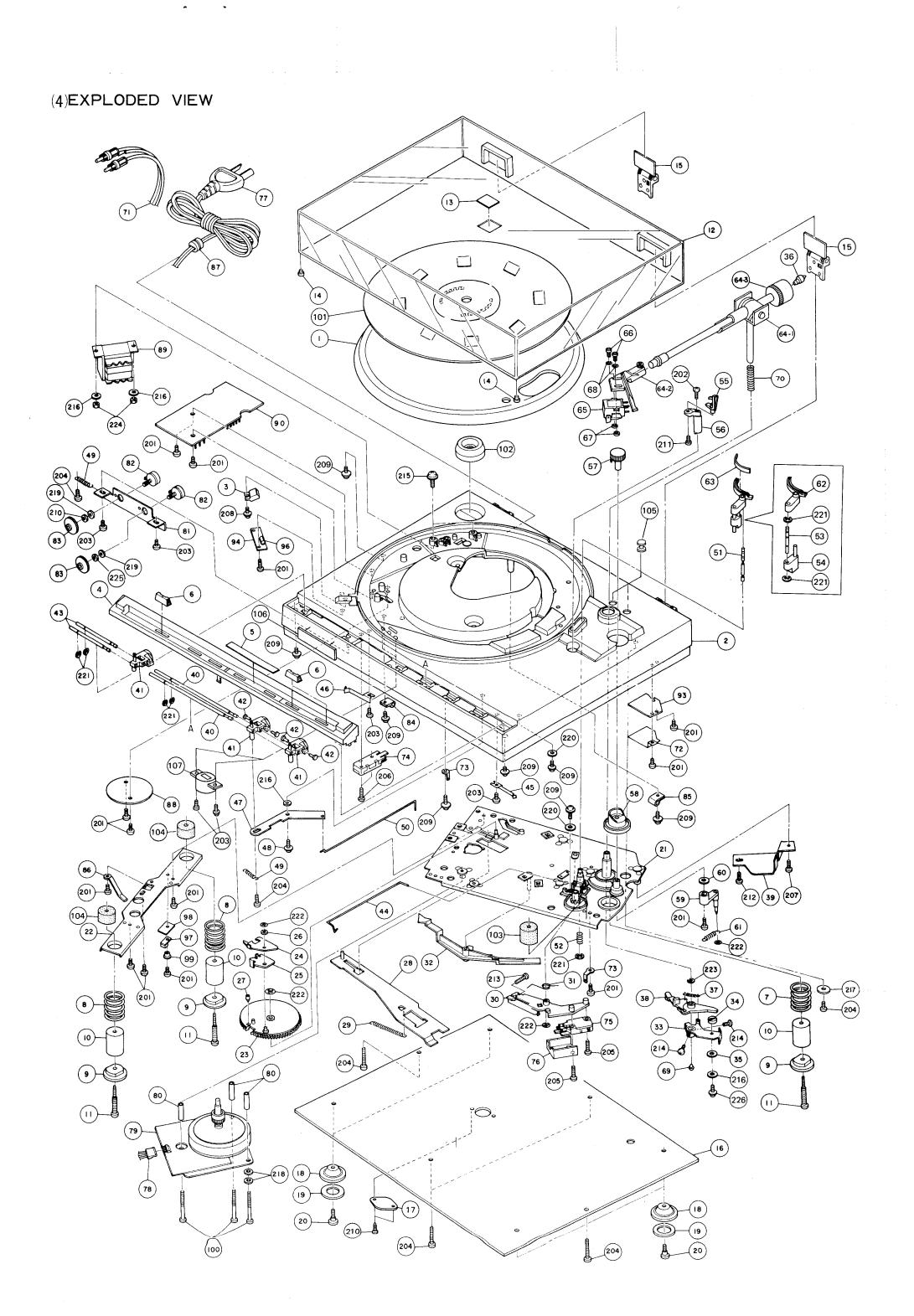


(3)-2 Wiring Diagrams









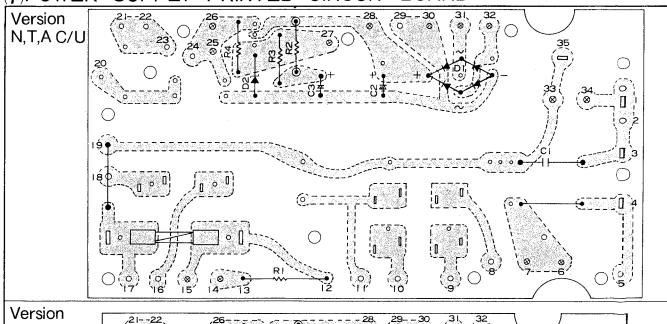
(5)PARTS LIST

2 10 2 10 3 47 4 20 5 48 6 48 7 47 8 25 9 22 10 25 11 24 12 20 13 48 14 44 15 47 16 31 17 44 18 47 18 47 18 47 18 47 18 47 20 27 21 20 22 31 22 24 24 24 25 24 27 21 28 31 29 25 31 48 31 48 32 46 33 48 34 47 36 47 37 48 38 48 39 48 31 48 31 48 32 46 33 48 34 47 36 47 37 48 48 47 47 48 48 47 48 47 48 47 48 47 48 47 48 47 48 48 48 47 48 47 48 48 48 47 48 48 47 49 48 49 47 50 48 48 47 50 48 48 48 49 47 50 48 50 48 50 48 50 50 50 50 50 50 50 50 50 50	2045101CEC 1004822CEC 1004821CEC 1004831CEC 1796701CEC 1796701CEC 1796301CEC 1835201CEC 1834500CEC 1799600CEC 17510214000 12210611300 12210611300 12210611300 12210611300 12420121800 1090801CEC 1786900CEC 1786900CEC 1786900CEC 1783700CEC 1783700CEC 1783700CEC 1783700CEC 1783700CEC 1783700CEC 1783700CEC 1783700CEC 1794400CEC 1094800CEC 11411011100 11211800 11211800 11211800 11211800 11211800 11211800 1131100CEC 113810CEC 113810CEC 113810CEC	Turntable platter Cabinet Cabinet Strobe filter Control plate Plate Knob Float spring Float spring Holder Cushion Screw Dust cover logo Dust cover cushion Hinge Bottom base Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet Ratchet Ratchet Ratchet Return plate assy. Spring Return arm Tonearm fixing plate assy. Cam Wave washer	N.E.T.A. C/U. AE. N.T.A. N.E.T.A.AE C/U	70 71 71 71 72 73 74 74 75 76 77 77 77 77 78 80 81 82 83 84 85 86 87 88 89 89 90 90	4819100CEC 3132403CEC 3165200CEC 4780500CEC 4780500CEC 4237921520 4231921995 4231921993 4231921991 2140110300 4771100CEC 4243200071 3136803CEC 4776200CEC 4756200CEC 4821900CEC 2093402CEC 4712107CEC 4770600CEC 3147700CEC 2360812405 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162600CEC 3162600CEC 3162500CEC 3162500CEC 3162600CEC	Spacer Output shielded cord Output shielded cord Shield cover Terminal lug Microswitch Microswitch Microswitch Microswitch Cover AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	N.E.T.A C/U. N.T.A. E. C/U. N.T.A. E. C/U. E. AE. N. T. A. C/U. N.T.A. E. C/U. N.T.A. E. C/U. N.T.A.
2 10 3 47 4 20 5 48 6 48 7 47 8 25 9 22 10 25 11 24 12 20 13 48 14 44 15 47 16 31 17 44 18 47 18 47 18 47 18 47 19 47 20 21 21 20 22 31 22 31 22 24 24 25 24 25 24 27 24 28 31 29 25 30 31 31 48 32 46 33 48 31 48 33 48 31 48 32 46 33 48 31 48 32 46 33 48 31 48 32 46 33 48 31 48 33 48 34 47 36 47 37 44 47 47 48 48 48 47 48 47 48 47 48 48 48 47 48 47 48 48 48 47 48 48 48 48	004831CEC 1796701CEC 17996301CEC 1834500CEC 1834500CEC 1799600CEC 1799600CEC 1510214000 1520512900 1520512900 1520512900 1520512900 1520512900 1520500CEC 1786900CEC 1786900CEC 1783700CEC 1783701CEC 1783701CEC 1783701CEC 1783701CEC 1783701CEC 1783701CEC 1783701CEC 1783701CEC 1783701CEC 1783701CEC 1783701CEC 1783701CEC 1783701CEC 1783800CEC 1783800CEC 138100CEC 138100CEC 138100CEC 1410211000 154100CEC 1510129500	Cabinet Strobe filter Control plate Plate Knob Float spring Float spring Holder Cushion Screw Dust cover Dust cover logo Dust cover cushion Hinge Bottom base Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Return arm Tonearm fixing plate assy. Cam	N.T.A. N.E.T.A.AE	71 71 71 73 74 75 75 76 77 77 77 77 78 80 81 82 83 84 85 86 87 88 89 89 90	3165200CEC 4780500CEC 4780500CEC 4237921520 4231921995 4231921994 4231921994 4231921991 2140110300 4771100CEC 4243200071 3136803CEC 4771001CEC 4756200CEC 4821900CEC 2093402CEC 4712107CEC 4712107CEC 4770600CEC 3147700CEC 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162600CEC 3162800CEC 3162800CEC 3162500CEC 3162500CEC	Output shielded cord Output shielded cord Shield cover Terminal lug Microswitch Microswitch Microswitch Microswitch Microswitch Cover AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	N.T.A. E. C/U. N.T.A. E. C/U. E. AE. N. T. A. C/U. N.T.A. E.C/U.A N.T.A. E.C/U.A
3 47: 4 20: 4 48: 6 48: 7 47: 8 25: 9 22: 10 25: 11 24: 12 20: 13 48: 14 44: 15 47: 18 47: 18 47: 18 47: 18 47: 18 47: 18 47: 20 47: 21 20: 22 31: 23 24: 24 24: 25 24: 26 24: 27 24: 28 31: 31 48: 31	1796701 CEC 1836701 CEC 1836700 CEC 1836700 CEC 1836700 CEC 1836700 CEC 1836700 CEC 183700 CEC 183700 CEC 1783701 CEC 1783701 CEC 1783700 CEC 1783700 CEC 1783701 CEC 1783700 CEC 1838100 CEC 1838100 CEC 1838100 CEC 1838100 CEC 1838500 CEC	Strobe filter Control plate Plate Knob Float spring Float spring Holder Cushion Screw Dust cover logo Dust cover cushion Hinge Bottom base Blind Insulator Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet Collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.T.A. N.E.T.A.AE	71 72 73 74 74 75 76 77 77 77 77 77 80 81 82 83 84 85 86 87 88 89 89 90	4780500CEC 4237921520 4231921993 4231921994 4231921991 2140110300 4771100CEC 4243200071 3136803CEC 4771001CEC 4756200CEC 4756200CEC 4712107CEC 4770600CEC 3147700CEC 3147700CEC 31628012404 0301610400 4442100CEC 2611121300 4351701CEC 3162800CEC 3162800CEC 3162800CEC 3162500CEC	Output shielded cord Shield cover Terminal lug Microswitch Microswitch Microswitch Microswitch Microswitch Cover AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	N.T.A. E. C/U. N.T.A. E. C/U. E. AE. N. T. A. C/U. N.T.A. E.C/U.A N.T.A. E.C/U.A
7	2096301CEC 1835201CEC 1834500CEC 1799600CEC 1799600CEC 1510214000 1520512900 1420121800 1090801CEC 1420500CEC 1786900CEC 143600CEC 1438600CEC 1783700CEC 1783700CEC 1783700CEC 1783700CEC 1783700CEC 1783800CEC 1783700CEC 1783100CEC 178100CEC 138100CEC 138100CEC 138100CEC 138100CEC 138100CEC 138100CEC 138100CEC 138100CEC 138100CEC 138100CEC 138100CEC 138100CEC 138100CEC 141011000 154100CEC 1510129500 154100CEC 159900CEC 199400CEC	Control plate Plate Knob Float spring Float spring Holder Cushion Screw Dust cover Dust cover logo Dust cover cushion Hinge Bottom base Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.T.A. N.E.T.A.AE	72 73 74 75 75 76 77 77 77 77 78 80 81 82 83 84 85 86 87 88 89 89 90	4237921520 4231921995 4231921994 4231921994 4231921991 2140110300 4771100CEC 4243200071 3136803CEC 4771001CEC 4756200CEC 4821900CEC 2093402CEC 4712107CEC 4712107CEC 4712107CEC 4342902CEC 2360812405 2360812405 2360812405 2360812406 4442100CEC 2611121300 4451701CEC 3162600CEC 3162800CEC 3162500CEC 3162500CEC	Shield cover Terminal lug Microswitch Microswitch Microswitch Microswitch Microswitch Microswitch Cover AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	N.T.A. E. C/U. N.T.A. E. G/U. E. AE. N. T. A. C/U. N.T.A. E.C/U. A. E. C/U.
7	R35201 CEC R34500 CEC R394500 CEC R510214000 R210611300 R520512900 R420121800 R99801 CEC R420500 CEC R420500 CEC R43600 CEC R43700 CEC R783700 CEC R783701 CEC R783701 CEC R783701 CEC R783701 CEC R783701 CEC R783701 CEC R783701 CEC R783800 CEC R783701 CEC R783800 CEC	Plate Knob Float spring Float spring Float spring Holder Cushion Screw Dust cover logo Dust cover cushion Hinge Bottom base Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	73 74 75 75 76 77 77 77 77 78 79 80 81 82 83 84 85 86 87 89 89 90	4237921520 4231921995 4231921994 4231921994 4231921991 2140110300 4771100CEC 4243200071 3136803CEC 4771001CEC 4756200CEC 4821900CEC 2093402CEC 4712107CEC 4712107CEC 4712107CEC 4342902CEC 2360812405 2360812405 2360812405 2360812406 4442100CEC 2611121300 4451701CEC 3162600CEC 3162800CEC 3162500CEC 3162500CEC	Terminal lug Microswitch Microswitch Microswitch Microswitch Microswitch Cover AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	E. C/U. N.T.A. E. G/U. E. AE. N. T. A. C/U. N.T.A. E.C/U. N.T.A. E.C/U. O.T. N.T.A. C/U.
7	1834500CEC 1799600CEC 1799600CEC 1510214000 1210611300 1520512900 1420121800 1090801CEC 1835600CEC 1420500CEC 143600CEC 1783700CEC 1783700CEC 1783700CEC 1783800CEC 1783700CEC 1783800CEC 1783800CEC 1797400CEC 138100CEC 1411011100 1412212000 1412211800 154100CEC 1510129500 154100CEC 1510129500 154100CEC 1510129500 154100CEC 1510129500 154100CEC 1510129500 154100CEC 1510129500 15410821000 154100CEC 1510129500 154100CEC 1510129500 154100CEC 1510129500 154100CEC	Knob Float spring Float spring Holder Cushion Screw Dust cover logo Dust cover cushion Hinge Bottom base Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	74 74 75 75 76 77 77 77 77 78 80 81 82 83 84 85 86 87 88 89 89 90	4231921995 4231921993 4231921994 4231921991 2140110300 4771100CEC 4243200071 3136803CEC 4771001CEC 4756200CEC 4821900CEC 2093402CEC 4712107CEC 4770600CEC 3147700CEC 4342902CEC 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162600CEC 3162800CEC 3162800CEC 3162800CEC 3162800CEC	Microswitch Microswitch Microswitch Microswitch Microswitch Cover AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	E. C/U. N.T.A. E. G/U. E. AE. N. T. A. C/U. N.T.A. E.C/U. N.T.A. E.C/U. O.T. N.T.A. C/U.
7	1799600CEC 1510214000 1210611300 12520512900 1420121800 1090801CEC 1835600CEC 1420500CEC 143600CEC 1433600CEC 1433600CEC 1783700CEC 1783700CEC 1783700CEC 1783800CEC 1783800CEC 1783800CEC 178100CEC 1411011100 1412212000 1412212000 154100CEC 1510129500 154100CEC 159900CEC 199400CEC	Float spring Float spring Holder Cushion Screw Dust cover Dust cover logo Dust cover cushion Hinge Bottom base Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	74 75 76 77 77 77 77 78 79 80 81 82 83 84 85 86 87 88 89 89 90	4231921993 4231921994 4231921991 2140110300 4771100CEC 4243200071 3136803CEC 4771001CEC 4756200CEC 4821900CEC 2093402CEC 4712107CEC 4712107CEC 4770600CEC 3147700CEC 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162800CEC 3162800CEC 3162500CEC 3162500CEC	Microswitch Microswitch Microswitch Microswitch Cover AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	E. C/U. N.T.A. E. G/U. E. AE. N. T. A. C/U. N.T.A. E.C/U. N.T.A. E.C/U. O.T. N.T.A. C/U.
8	2510214000 2210611300 2210611300 2420121800 2090801CEC 420500CEC 420500CEC 433600CEC 4433600CEC 4433600CEC 4433600CEC 4783701CEC 4783701CEC 4783800CEC 4797400CEC 4111011100 412212000 412211800 410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 81818500CEC 799400CEC	Float spring Holder Cushion Screw Dust cover Dust cover logo Dust cover cushion Hinge Bottom base Blind Insulator Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	75 75 76 77 77 77 77 78 79 80 81 82 83 84 85 86 87 87 88 89 89 90	4231921994 4231921991 21401110300 4771100CEC 4243200071 3136803CEC 4771001CEC 4756200CEC 4821900CEC 4712107CEC 4770600CEC 3147700CEC 4342902CEC 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162800CEC 3162800CEC 3162500CEC 3150601CEC	Microswitch Microswitch Cover AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	N.T.A. E. C/U. E. AE. N. T. A. C/U. N.T.A. E. C/U.A. N.T.A. E. AE. C/U.
9 22: 10 25: 11 24: 12 20: 13 48: 14 44: 15 47: 16 31: 17 44: 18 47: 18 47: 18 47: 20 47: 21 20: 22 31: 23 24: 24 24: 25 24: 26 24: 27 24: 28 31: 31 48: 31	2210611300 1520512900 1090801 CEC 1835600 CEC 1786900 CEC 1786900 CEC 1783700 CEC 1783700 CEC 1783701 CEC 1783700 CEC 1783700 CEC 1783701 CEC 1783700 CEC 17937400 CEC 1793740 CEC 1793740 CEC 1793740 CEC	Float spring Holder Cushion Screw Dust cover Dust cover logo Dust cover cushion Hinge Bottom base Blind Insulator Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	75 76 77 77 77 77 78 80 81 82 83 84 85 86 87 88 89 89 90	4231921991 2140110300 4771100CEC 4243200071 3136803CEC 4771001CEC 4756200CEC 4821900CEC 2093402CEC 4712107CEC 4712107CEC 4742902CEC 236081 2405 236081 2405 236081 2404 0301610400 44421 00CEC 2611121300 4351701CEC 3162800CEC 3162800CEC 3162500CEC 3150601CEC	Microswitch Cover AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	E. C/U. E. AE. N. T. A. C/U. N.T.A. E.C/U.A N.T.A. E.C/U.A
10 25; 11 24; 11 20; 13 48; 14 44; 16 31; 17 44; 18 47; 18 47; 19 47; 20 47; 21 20; 22 31; 23 24; 24 24; 27 24; 26 24; 27 24; 28 31; 29 25; 30 24; 31 48; 31	1520512900 1420121800 1990801CEC 1835600CEC 1420500CEC 143600CEC 1433600CEC 1783700CEC 1783700CEC 1783700CEC 1783700CEC 1783800CEC 17937400CEC 1094800CEC 1411011100 1412212000 1412212000 1412211800 154100CEC 1510129500 154100CEC 1510129500 154100CEC 1510129500 154100CEC 1510129500 154100CEC 1510129500 154100CEC 1510129500 154100CEC 1510129500 154100CEC 1510129500 154100CEC	Cushion Screw Dust cover Dust cover logo Dust cover cushion Hinge Bottom base Blind Insulator Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	76 77 77 77 77 77 78 79 80 81 82 83 84 85 86 87 87 88 89 89 90	2140110300 4771100CEC 4243200071 3136803CEC 4771001CEC 4756200CEC 4821900CEC 2093402CEC 4712107CEC 4770600CEC 3147700CEC 2360812405 2360812404 0301610400 4442100CEC 2611121300 444210CEC 3162600CEC 3162800CEC 3162500CEC 3150601CEC	Cover AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	E. AE. N. T. A. C/U. N.T.A. E.C/U.A N.T.A. E. AE. C/U.
11	#420121800 1090801CEC #835600CEC #420500CEC #420500CEC #43600CEC #433600CEC #433600CEC #783701CEC #783701CEC #783701CEC #79400CEC 1094800CEC #11011100 #12212000 #122121800 #10918300	Screw Dust cover Dust cover logo Dust cover cushion Hinge Bottom base Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	77 77 77 77 78 79 80 81 82 83 84 85 86 87 87 88 89 89	4771100CEC 4243200071 3136803CEC 4771001CEC 4756200CEC 4821900CEC 2093402CEC 4712107CEC 4770600CEC 3147700CEC 4342902CEC 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162800CEC 3162800CEC 3162500CEC 3150601CEC	AC power supply cord Cord assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	N. T. A. C/U. N.T.A. E.C/U.A N.T.A. E. C/U.A
12 200 13 481 14 441 15 471 16 311 17 447 18 478 18 478 19 478 20 479 21 201 22 201 22 201 22 201 22 201 22 201 22 201 22 201 23 224 24 224 25 241 28 315 29 251 30 241 31 482 31 482 31 483 32 466 33 481 33 483 34 477 36 477 474 477 480 480 481 477 486 478 487 488 489 479 489 489 479 480 481 477 486 478 487 486 478 487 487 488 478 489 479 480 481 477 486 478 487 487 488	090801 CEC 0835600 CEC 1835600 CEC 1786900 CEC 1148600 CEC 1148600 CEC 1783700 CEC 1783701 CEC 1783701 CEC 1783701 CEC 1783800 CEC 1783800 CEC 138100 CEC 14110111 00 1412212000 1412211800 1410211800 154100 CEC 1510129500 15410821000 825200 CEC 695900 CEC 695900 CEC 799400 CEC	Dust cover Dust cover logo Dust cover cushion Hinge Bottom base Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	77 77 77 78 79 80 81 82 83 84 85 86 87 87 88 89 89	4243200071 3136803CEC 4771001CEC 4756200CEC 4821900CEC 2093402CEC 4712107CEC 4770600CEC 3147700CEC 4342902CEC 2360812405 2360812405 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162600CEC 3162800CEC 3162500CEC	AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	N. T. A. C/U. N.T.A. E.C/U.A N.T.A. E. AE. C/U.
13	835600CEC 420500CEC 420500CEC 1786900CEC 1148600CEC 1433600CEC 1783700CEC 1783701 CEC 1783800CEC 1797400CEC 138100CEC 411011100 412212000 412211800 410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 799400CEC	Dust cover logo Dust cover cushion Hinge Bottom base Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	77 77 78 79 80 81 82 83 84 85 86 87 88 89 89	3136803CEC 4771001CEC 4756200CEC 4821900CEC 4821900CEC 4712107CEC 4770600CEC 3147700CEC 4342902CEC 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162600CEC 3162500CEC 3162500CEC 3150601CEC	AC power supply cord AC power supply cord AC power supply cord AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	N.T.A. E.C/U.A N.T.A. E. AE. C/U.A
14	420500CEC 1786900CEC 1786900CEC 1433600CEC 1783700CEC 1783700CEC 1783700CEC 1783800CEC 138100CEC 138100CEC 1411011100 1412212000 1412211800 1410918300 154100CEC 1510129500 1410821000 825200CEC 695900CEC 799400CEC	Dust cover cushion Hinge Bottom base Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	77 77 78 79 80 81 82 83 84 85 86 87 87 88 89 89	4771001CEC 4756200CEC 4821900CEC 2093402CEC 4712107CEC 4770600CEC 3147700CEC 4342902CEC 2360812404 0301610400 4442100CEC 2611121300 444210CEC 3162600CEC 3162800CEC 3162500CEC 3150601CEC	AC power supply cord AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	N.T.A. E.C/U.A N.T.A. E. C/U.A
15	1786900CEC 1148600CEC 14433600CEC 1783700CEC 1783701CEC 1783701CEC 1797400CEC 1797400CEC 138100CEC 138100CEC 138100CEC 1381211800 4112212000 4112211800 410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 799400CEC	Dust cover cushion Hinge Bottom base Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	77 78 79 80 81 82 83 84 85 86 87 87 88 89 89	4756200CEC 4821900CEC 2093402CEC 4712107CEC 4770600CEC 3147700CEC 4342902CEC 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162800CEC 3162800CEC 3162500CEC 3150601CEC	AC power supply cord Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	N.T.A. E.C/U. N.T.A. E. AE. C/U.
15	1786900CEC 1148600CEC 14433600CEC 1783700CEC 1783701CEC 1783701CEC 1797400CEC 1797400CEC 138100CEC 138100CEC 138100CEC 1381211800 4112212000 4112211800 410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 799400CEC	Hinge Bottom base Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	78 79 80 81 82 83 84 85 86 87 87 88 89 89	4821900CEC 2093402CEC 4712107CEC 4770600CEC 3147700CEC 4342902CEC 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162800CEC 3162800CEC 3162500CEC 3150601CEC	Cord assy. Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	N.T.A. E.C/U., N.T.A. E. AE. C/U.
16 31.1 17 44.1 18 47.1 18 47.1 18 47.1 18 47.1 19 47.1 20 47.2 21 20.2 22 21.2 23 22.4 24.2 24.2 25 24.2 26 22.4 27 24.2 28 31.1 29 25.1 30 22.1 31 48.2 32 46.6 33 48.1 33 48.1 33 48.1 34 47.7 34 47.7 34 47.7 34 47.7 34 47.7 34 47.7 34 47.7 34 47.7 34 47.7 34 47.7 35 47.7 36 47.7 37 48.0 38 48.1 39 48.1 39 48.1 31 31 48.2 31 48.3 32 46.3 33 48.1 34 47.7 35 46.3 36 47.8 37 25.1 38 24.1 39 48.1 31 31 31 31 32 48.1 31 32 48.1 31 32 48.1 31 32 48.1 31 32 48.1 31 33 48.1 31 35 24.1 31 36 47.1 31 37 37 37 37 37 37 37 37 37 37 37 37 37	1433600CEC 1783700CEC 1783701CEC 1783800CEC 1797400CEC 1094800CEC 1138100CEC 1411011100 1412212000 1412211800 141000400 1410918300 154100CEC 510129500 1410821000 825200CEC 695900CEC 818500CEC 799400CEC	Bottom base Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	79 80 81 82 83 84 85 86 87 88 89 89 89	2093402CEC 4712107CEC 4770600CEC 3147700CEC 4342902CEC 236081 2404 0301610400 4442100CEC 2611121300 4351701CEC 3162600CEC 3162800CEC 3162500CEC 3150601CEC	Motor assy. Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	N.T.A. E. AE. C/U.
17 44: 18 47: 18 47: 19 47: 20 47: 21 20: 22 31: 23 24 24: 26 24: 27 24: 28 31: 29 25: 30 48: 31 48: 31 48: 33 48: 34 47: 38 24: 36 47: 37 48: 48: 477 44 477 45 479 46 478 477 46 478 477 46 478 477 480 481 477 480	1433600CEC 1783700CEC 1783701CEC 1783800CEC 1797400CEC 1094800CEC 1138100CEC 1411011100 1412212000 1412211800 141000400 1410918300 154100CEC 510129500 1410821000 825200CEC 695900CEC 818500CEC 799400CEC	Blind Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	80 81 82 83 84 85 86 87 87 88 89 89 89	4712107CEC 4770600CEC 3147700CEC 4342902CEC 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162800CEC 3162800CEC 3162500CEC 3150601CEC	Spacer Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer Power transformer	N.T.A. E. AE. C/U.
18 478 18 478 19 478 20 478 21 200 22 311 23 242 24 242 25 241 28 315 29 251 30 247 31 483 32 466 477 480 41 313 440 480 41 313 442 479 443 477 444 479 446 478 480 481 470 481 471 480 481 477 482 481 473 481 474 480 481 477 482 481 473 481 474 480 481 477 482 481 483 477 <td>783700CEC 7783701CEC 7783800CEC 797400CEC 1094800CEC 138100CEC 411011100 412212000 412211800 410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 799400CEC</td> <td>Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam</td> <td>N.E.T.A.AE</td> <td>81 82 83 84 85 86 87 87 88 89 89 89</td> <td>4770600CEC 3147700CEC 4342902CEC 2360812405 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162600CEC 3162800CEC 3162500CEC 3150601CEC</td> <td>Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer</td> <td>N.T.A. E. AE. C/U.</td>	783700CEC 7783701CEC 7783800CEC 797400CEC 1094800CEC 138100CEC 411011100 412212000 412211800 410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 799400CEC	Insulator Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	N.E.T.A.AE	81 82 83 84 85 86 87 87 88 89 89 89	4770600CEC 3147700CEC 4342902CEC 2360812405 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162600CEC 3162800CEC 3162500CEC 3150601CEC	Variable resistor mounting plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer	N.T.A. E. AE. C/U.
18 478 19 476 20 477 20 477 21 200 22 31; 23 244 24 24; 26 24; 27 24; 28 31; 29 25; 30 24; 33 48; 32 46; 33 48; 34 47; 36 24; 37 25; 38 241 39 481 40 480 41 313 42 479 43 477 44 478 480 480 481 478 49 479 450 481 47 480 480 481 47 480 481 479 450 481 47 480	1783701 CEC 1783800CEC 1783800CEC 1094800CEC 1094800CEC 138100CEC 1411011100 1412212000 1410211800 1410700400 1410918300 154100CEC 510129500 1410821000 825200CEC 695900CEC 818500CEC 799400CEC	Insulator Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam		82 83 84 85 86 87 87 88 89 89 89	3147700CEC 4342902CEC 2360812405 2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162600CEC 3162800CEC 3162500CEC 3150601CEC	plate Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer Power transformer	N.T.A. E. AE. C/U.
19	1783800CEC 1797400CEC 1094800CEC 1138100CEC 1411011100 412212000 41021800 410700400 410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 695900CEC	Felt Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam	C/U	83 84 85 86 87 87 88 89 89 89	4342902CEC 236081 2405 236081 2404 0301610400 4442100CEC 2611121300 4351701CEC 3162800CEC 3162800CEC 3162500CEC 3150601CEC	Variable resistor Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer Power transformer	N.T.A. E. AE. C/U.
20	797400CEC 0094800CEC 1138100CEC 411011100 412212000 412211800 410700400 410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 799400CEC	Screw Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam		83 84 85 86 87 87 88 89 89 89	4342902CEC 236081 2405 236081 2404 0301610400 4442100CEC 2611121300 4351701CEC 3162800CEC 3162800CEC 3162500CEC 3150601CEC	Pitch control knob Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer Power transformer	N.T.A. E. AE. C/U.
21 20; 22 31; 23 24; 24 24; 25 24; 26 24; 27 24; 28 31; 29 25; 30 24; 31 48; 31 48; 32 46; 33 48; 33 48; 34 47; 34 47; 34 47; 48 48; 47 48; 47 48; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 49 47; 49 47; 40 48; 41 47; 42 47; 43 47; 44 47; 45 47; 46 47; 47 48; 48 47; 48 47; 48 47; 49 47; 49 47; 40 48; 41 47; 42 47; 43 47; 44 47; 45 47; 46 47; 47 48; 48 47; 48 47; 49 47; 49 47; 40 48; 41 47; 42 47; 43 47; 44 47; 45 47; 46 47; 47 48; 48 47; 49 47; 49 47; 40 48; 41 47; 42 47; 43 47; 44 47; 45 47; 46 47; 47 48; 48 47; 49 47; 49 47; 40 48; 41 47; 42 47; 43 47; 44 47; 45 47; 46 47; 47 48; 48 47; 49 47; 49 47; 40 48; 41 47; 42 47; 43 47; 44 47; 45 47; 46 47; 47 48; 48 47; 49 47; 49 47; 40 48; 41 47; 42 47; 43 47; 44 47; 45 47; 46 47; 47 48; 48 47; 48 47; 48 48; 47 48; 48 47; 48 47; 48 47; 48 48; 47 48; 47 48; 47 48; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 47; 48 48; 47 47; 48 48; 47 48; 47 48; 47 48; 48 47; 48 48; 48 47; 48 47; 48 48; 48 47; 48 47; 48 48; 48 47; 48 48; 48 47; 48 48; 48 47; 48 48; 48 47; 48 48; 48 47; 48 47; 48 48; 48 47; 48 48; 48 47; 48 48; 48 47; 48 48; 48 47; 48 48; 48 47; 48 48; 48 47; 48 48; 48 47; 48 48; 48 47; 48 48; 48 47; 48 48; 48	094800CEC 138100CEC 138100CEC 411211100 412212000 412211800 410700400 410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 695900CEC 799400CEC	Subchassis Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam		84 85 86 87 87 88 89 89 89	236081 2405 236081 2404 0301610400 44421 00CEC 2611121300 4351701CEC 3162600CEC 3162800CEC 3162500CEC 3150601CEC	Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer Power transformer	N.T.A. E. AE. C/U.
222 313 23 24 24 24 25 24 26 24 27 24 28 31 29 25 30 24 31 48 31 48 31 48 32 46 33 48 34 47 35 24 36 47 37 25 38 24 41 31 39 48 40 47 47 44 47 44 47 44 47 44 47 44 47 44 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 47 48 48 48 47 48 48 48 47 48 48 48 48 47 48 48 48 48 48 48 48 48 48 48 48 48 48	138100CEC 411011100 4112212000 4112211800 410700400 410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 818500CEC 799400CEC	Spring mounting plate Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam		84 85 86 87 87 88 89 89 89	2360812404 0301610400 4442100CEC 2611121300 4351701CEC 3162600CEC 3162800CEC 3162500CEC 3150601CEC	Cord stopper 2N Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer Power transformer	N.T.A. E. AE. C/U.
23	411011100 412212000 412211800 410700400 410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 695900CEC 799400CEC	Drive gear Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam		85 86 87 87 88 89 89 89	0301610400 4442100CEC 2611121300 4351701CEC 3162600CEC 3162800CEC 3162500CEC 3150601CEC	Nylon clamp 3N Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer Power transformer	N.T.A. E. AE. C/U.
24 24' 25 24' 26 24' 27 24' 28 31! 29 25' 30 24' 31 48' 31 48' 32 46' 33 48' 34 47' 35 24' 36 47' 37 25' 38 24' 48' 477 44 477 44 477 45 479 45 478 480 478 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480	412212000 412211800 41090400 410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 799400CEC	Ratchet Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam		86 87 87 88 89 89 89 90	0301610400 4442100CEC 2611121300 4351701CEC 3162600CEC 3162800CEC 3162500CEC 3150601CEC	Clamp wire assy. Strain relief Bushing Blind Power transformer Power transformer Power transformer	N.T.A. E. AE. C/U.
25	412211800 410700400 410918300 154100CEC 510129500 410821000 825200CEC 818500CEC 799400CEC	Ratchet Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam		87 87 88 89 89 89 90	4442100CEC 2611121300 4351701CEC 3162600CEC 3162800CEC 3162500CEC 3150601CEC	Strain relief Bushing Blind Power transformer Power transformer Power transformer	N.T.A. E. AE. C/U.
26 241 277 241 277 241 278 311 299 251 30 241 31 482 31 466 313 481 314 477 313 477 44 477 44 477 44 477 44 477 44 477 45 478 478 480 481 481 478 480 481 478 480 481 478 480 481 478 480 481 481 478 480 481 481 481 481 481 481 481 481 481 481	410700400 410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 818500CEC 799400CEC	Ratchet collar Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam		87 88 89 89 89 90	2611121300 4351701CEC 3162600CEC 3162800CEC 3162500CEC 3150601CEC	Bushing Blind Power transformer Power transformer Power transformer	N.T.A. E. AE. C/U.
27 241 28 311 28 25 30 241 31 483 32 463 33 481 34 473 35 241 36 478 37 251 38 241 40 480 41 313 477 44 477 45 479 45 478 477 45 478 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480	410918300 154100CEC 510129500 410821000 825200CEC 695900CEC 818500CEC 799400CEC	Pin Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam		88 89 89 89 90	4351701CEC 3162600CEC 3162800CEC 3162500CEC 3150601CEC	Blind Power transformer Power transformer Power transformer	N.T.A. E. AE. C/U.
28 31! 29 25i 30 241 31 482 32 465 33 481 33 483 34 475 35 242 36 476 38 241 39 481 40 480 477 44 477 45 479 46 478 479 479 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 478 479 481	154100CEC 510129500 410821000 825200CEC 695900CEC 818500CEC 799400CEC	Return plate assy. Spring Plate Spring Return arm Tonearm fixing plate assy. Cam		89 89 89 90 90	3162600CEC 3162800CEC 3162500CEC 3150601CEC	Power transformer Power transformer Power transformer	E. AE. C/U.
29 251 30 241 31 482 32 465 33 481 34 475 35 242 36 478 37 251 38 241 39 481 40 480 41 477 44 477 45 479 46 478 479 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480 481 477 480	510129500 410821000 825200CEC 695900CEC 818500CEC 799400CEC	Spring Plate Spring Return arm Tonearm fixing plate assy. Cam		89 89 90 90	3162800CEC 3162500CEC 3150601CEC	Power transformer Power transformer	E. AE. C/U.
30 241 31 482 32 465 33 481 34 475 35 242 36 478 37 251 38 241 40 480 41 313 477 44 477 44 477 45 478 480 481 478 478 480 481 478 478 480 481 478 481 478 481 478	410821000 825200CEC 695900CEC 818500CEC 799400CEC	Spring Plate Spring Return arm Tonearm fixing plate assy. Cam		89 90 90	3162500CEC 3150601CEC	Power transformer	C/U.
30 241 31 482 32 465 33 481 34 475 35 242 36 478 37 251 38 241 38 241 40 477 44 477 44 477 44 477 45 478 46 478 478 480 481 478 480 481 477 480 481 477 480 481 477 480 481 477 480 481 478 480 478 481 478 481 478 481 478 481 478 481 478 481 478 481 478 481 478 481 478 481 478 481 478 481 481 481 481 481 481 481 481 481 48	825200CEC 695900CEC 818500CEC 799400CEC	Plate Spring Return arm Tonearm fixing plate assy. Cam		90 90	3150601CEC		
31 48: 46: 33 48: 34 47: 35 242: 36 47: 37 25: 38 24: 39 48: 40 48: 41 31: 47: 47: 47: 47: 47: 48: 47: 48: 47: 48: 47: 48: 47: 48: 47: 48: 47: 48: 47: 48: 48: 48: 47: 48: 48: 48: 48: 48: 48: 48: 48	825200CEC 695900CEC 818500CEC 799400CEC	Spring Return arm Tonearm fixing plate assy. Cam		90			I N. I A
32 469 33 481 34 479 35 242 36 478 37 251 38 241 39 481 40 480 411 313 42 479 444 477 45 479 46 478 478 480 478	695900CEC 818500CEC 799400CEC	Return arm Tonearm fixing plate assy. Cam				Power PCB assy.	
33 481 34 473 35 242 36 478 37 251 38 241 39 481 40 480 41 313 42 479 44 477 44 477 44 477 45 478 46 478 478 480 481 478 481 481 481 481 481 481 481 481 481 48	818500CEC 799400CEC	Tonearm fixing plate assy. Cam				Power PCB assy.	E. AE.
34 475 35 242 36 476 37 251 38 241 480 481 41 313 42 479 43 477 44 477 45 478 46 478 478 49 479 50 481 477 51 477 52 251 53 477	799400CEC	Cam	1		3144900CEC	Power PCB assy.	C/U.
35 242 36 478 37 251 38 241 39 481 40 480 411 313 42 479 43 477 45 479 46 478 479 480 481 479 479 480 481 479 481				91	3140300CEC	Power PCB	
36 478 37 251 38 241 39 481 40 486 411 313 42 479 43 477 44 477 45 478 46 478 478 480 478 49 479 50 481 51 477 52 251		A A G A A G A A G A A G A A G A G A G A		R1	XBJ363ACEC	OMF resistor 36 Kohm 2W	N.T.A.
37 251 38 241 39 481 40 480 41 313 42 479 43 477 44 477 45 478 46 478 478 480 478 49 479 50 481 51 477 52 251	784900CEC	Subweight		R1	XBJ123ACEC	OMF resistor 12 Kohm 1W	E.C/U.
38	510120500	Spring	C/U. AE.	R2	DPJ471ACEC	Carbon resistor 470 ohm	
39 481 40 486 41 313 42 479 43 477 45 479 46 478 479 480 484 479 49 479 50 481 51 477 52 251 53 477	412018300					1/4W	
40 480 41 313 42 479 43 477 44 477 45 478 46 478 47 480 48 479 49 479 50 481 51 477 52 251		Lever	1	R3	DPJ471 ACEC	Carbon resistor 470 ohm	
41 313 42 479 43 477 44 477 45 479 46 478 477 480 48 478 49 479 50 481 51 477 52 251	818400CEC	Tonearm thrust mounting				1/4W	
42 479 43 477 44 477 45 479 46 478 477 480 478 479 480 479 479 477 500 481 51 52 251 53	805700CEC	Slide guide		R4	DPJ152ACEC	Carbon resistor 1.5 Kohm	1
43 477 44 477 45 479 46 478 47 480 48 478 49 479 50 481 51 477 52 251 53 477	135000CEC	Slide lever			l	1/4W	
44 477 45 479 46 478 47 480 48 478 49 479 50 481 51 477 52 251 53 477	798700CEC	Cushion		D1	W020000CEC	Bridge diode	
45 479 46 478 47 480 48 478 49 479 50 481 51 477 52 251 53 477	777900CEC	Slide guide B		D2	WZ19200CEC	Zener diode	
46 478 47 480 48 478 49 479 50 481 51 477 52 251 53 477	778000CEC	Link (L)		C1	4807800CEC	Condenser	N.T.A.
47 480 48 478 49 479 50 481 51 477 52 251 53 477	798600CEC	Spring		C1	HRM103ACEC	Condenser	N.T.A.
48 478 49 479 50 481 51 477 52 251 53 477	784300CEC	Spring		C1	FRM103CCEC	Condenser	N.T.A.
19 479 50 481 51 477 52 251 53 477	807400CEC	Lever		C1	4356200CEC	Condenser	E. AE.
50 481 51 477 52 251 53 477	783500CEC	Screw		C1	4795000CEC	Condenser	C/U.
51 477 52 251 53 477	792500CEC	Spring		C2	VRE477ACEC	Electrolytic condenser	1
52 251 53 477	818900CEC	Spring	 	_		470µF 35V	1
53 477	772100CEC	Lift bar		C3	ERE476ACEC	Electrolytic condenser	1
	510124700	Spring				47μF 25V	N.T.A.C
-	772200CEC	Adjusting screw		C3	VRE476ACEC	Electrolytic condenser	1
	772000CEC	Actuator				47μF 35V	E.AE.
	534400CEC	Tonearm rest assy.		92	3061817CEC	Fuse	N.T.A.
	771800CEC	Rest arm		92	4234921280	Fuse	C/U.
57 480	805201CEC	Antiskating knob	1	93	4780600CEC	Shield PCB	U/U.
58 477	774300CEC	Point	1		0400102950		
	772300CEC	Antiskating lever		94 95	4226204360	Neon lamp PCB assy.	
	774400CEC	Washer	1		4612920795	Neon lamp PCB	
	788700CEC	Antiskating spring		96 07	5857033040	Neon lamp	1
	133800CEC	Tonearm support		97		Transistor 2SD 330D	-
	402701CEC	Tonearm support rubber	1	97	5857033050	Transistor 2SD 330E	
	163801 CEC	Tonearm assy.	L	98	4497500CEC	Insulation sheet	
	163800CEC	Tonearm assy.	N.E.T.A.AE	99	4639600CEC	Bushing	1
54-1	103000CEC	Tonearm	[C/U]	100	4845500CEC	Tapping screw 4 x 35	
	163802CEC		N.E.T.A.AE	101	2096400CEC	Turntable platter mat	N.E.T.A
		Tonearm	c/U.	101	2096401CEC	Turntable platter mat	C/U
	834601CEC	Headshell	N.E.T.A.AE	102	4310000CEC	45 rpm adapter	
		Headshell	C/U.	103	4446400CEC	Cushion	
	834600CEC	Counterweight		104	4446401CEC	Cushion	
	834600CEC 733100CEC	Cartridge	N.E.T.A.	105	2290411001	Pad	C/U.
	834600CEC 733100CEC 837400CEC	Cartridge mounting screw	N.E.T.A.	106	4835900CEC	Cabinet badge	C/U. AE
37 432	834600CEC 733100CEC	Cartridge mounting nut		107	3166100CEC	Voltage selector	E. AE.
8 432	834600CEC 733100CEC 837400CEC			108	4690500CEC	Plug conversion	E. AE.
9 241	834600CEC 733100CEC 837400CEC 420111313	Cartridge mounting washer	} 1	100	.50000000	I IGA COUNCISION	L. AC.

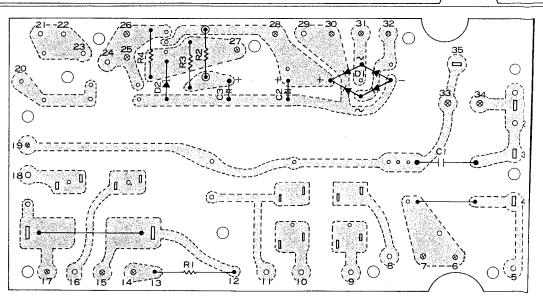
(6)SCREWS, WASHERS AND NUTS

Ref. No.	Parts No.	Description	Ref. No.	Parts No.	Description
201	2012200CEC	Brazier head taptite screw B ϕ 3x8	212	2122200CEC	Pan head taptite screw B ϕ 3×35
202	2022200CEC	\oplus Brazier head taptite screw B ϕ 3x8	213	2132200CEC	 Pan head taptite screw C φ3x14
}		(Bronze)	214	2142200CEC	Pan head screw M3x6
203	2032200CEC	Brazier head taptite screw B ϕ 3x10	215	2152200CEC	 Pan head Sems screw with M3x20
204	2042200CEC	\oplus Brazier head taptite screw B ϕ 3x12			plain washer
205	2052200CEC	\oplus Brazier head taptite screw B ϕ 3x16	216	2162200CEC	Plain washer 3φx10φx1t
206	2062200CEC	 Brazier head taptite screw B φ3x20 	217	2172200CEC	Plain washer 3φx16φx1t
207	2072200CEC	Brazier head taptite screw B ϕ 3x25	218	2182200CEC	Plain washer $4\phi \times 10\phi \times 1.6t$
208	2082200CEC	 Brazier head taptite screw B φ3x8 	219	2192200CEC	Plain washer 7φx12φx0.5t
		with plain washer	220	2202200CEC	Nylon washer 3φx12φx1t
209	2092200CEC	 Brazier head taptite screw B φ3x10 	221	2212200CEC	E type washer 2ϕ
		with plain washer	222	2222200CEC	Stop ring CSTW-3
210	2102200CEC	 Brazier head tapping screw φ3x6 	223	2232200CEC	Stop ring CSTW-5
		(class 1)	224	2242200CEC	Hexagon nut M3
211	2112200CEC	• Pan head taptite screw B $\phi 2.6 \times 6$	225	2252200CEC	Hexagon nut M7
		(Bronze)	226	2262200CEC	⊕ Pan head screw M3x4.

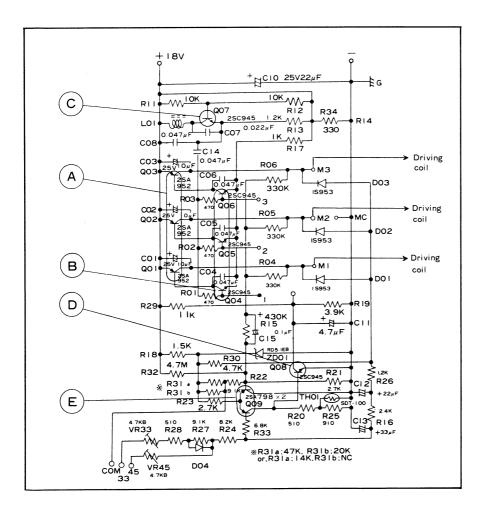
(7)POWER SUPPLY PRINTED CIRCUIT BOARD



Version E,AE



(8)SERVO CONTROLLER CIRCUIT DIAGRAM



	Tr No.	Base Voltage	Collector Voltage	Wave form Base	Wave form Collector
A	Q01~03	18V DC	2.8V 1.2VAC	G 18V (DC)	G 2.8V 1.2V (AC)
B	Q04~06	2Vp-pAC	0.2Vp-pAC	G 2V P-P	G 0.2V p-p
©	Q07	1.6Vp-pAC	17Vp-pAC	G	G 17V pp
©	Q08	0.7V DC	2.5V DC	G	G
E	Q09a b	0.5V DC	OV,E1VDC 0.65V DC	G	G 1V(DC) G 0.65V (DC)



marentz

MARANTZ EUROPE S.A.

326 Avenue Louise Bte 32 1050 Brussels Belgium

MARANTZ COMPANY, INC

20525 Nordhoff st. Chatsworth California 91311 U S A.

MARANTZ AUSTRALIA PTY LTD.

32 Cross Street Brookvale NSW 2100 Australia

MARANTZ GERMANY GMBH

Max-Planckstrasse 22 6072 Dreieich 1 West Germany

MARANTZ AUDIO U.K. LTD.

Unit 15/16 Saxon Way Moor Lane Harmonsworth UB7 OLW Great Britain

MARANTZ FRANCE

4 rue Bernard Palissy 92600 Asnieres France

MARANTZ BELGIUM

45 rue Auguste Van Zande 1080 Brussels Belgium

MARANTZ SVENSKA A.B.

Franzengatan 6 10425 Stockholm Sweden

MARANTZ NORSKE A.S.

Refstadalleen 13 Oslo 5 Norway